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George Schell

University of North Carolina at Wilmington

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The “Introduction to Management Information Systems” Course Goes Online

George P. Schell, Cameron School of Business Administration, University of North Carolina at
Wilmington, 601 South College Avenue, Wilmington, North Carolina 28403-3297,
schellg@uncwil.edu

Abstract

The world holds a fascination for information technology and the internet. This provides a wonderful opportunity to embody the course concepts of the information systems core business school course within the framework of the information technology being taught. Teaching this core business school course in a web-based format exposes the student to the theory and practicalities of information systems.

There are many motivations for faculty to offer web-based courses. A consistently high ranked motivation is the faculty member's enjoyment of technology. The enjoyment will be tested since virtually all faculty that offer web-based courses comment on the substantial additional effort required to teach a web-based versus traditional course.

This presentation focuses on why web-based courses are offered, key issues for success, and why the introductory course for management information systems is a natural choice.

Introduction

The decision to convert a traditional face-to-face, lecture-based course into a web-based course is one that should not be taken lightly. It will significantly increase the faculty member's time for both the preparation and delivery of the course. It will require more technology resources from both the university administration and the student body who are already trying to reduce the cost of higher education. However, web-based instruction offers the potential of making high quality higher education available to a large audience that is stressed for time or unable to journey to campus.

This article chronicles some of the experiences of a university in the initial phases of establishing web-based courses. A wide range of courses from the schools within the university were developed into web-based courses. This is the beginning point for establishing web-based delivery of core courses in the curriculums of the business, education, and nursing schools of the campus.

The group of faculty involved in the beginning phase developed a survey for students enrolled in the web-based courses to gather demographic information and to capture their expectations for web-based education. Information gathered from the survey is presented within the body of this article. One comforting assurance was that the responses from students at our university were in line with web-based instruction experiences at other universities.

Why offer web-based instruction?

The answer falls into different categories depending upon what audience is asked. Debriefing of the faculty members who developed the first 15 courses in the university showed a strong consensus on three reasons; (a) faculty members enjoyed the use of the technology, (b) the faculty viewed web-based teaching as the logical extension of their previous use of technology in course work, and (c) the intellectual stimulation resulting from learning to deliver web-based courses.

The university administration has its own set of interests for web-course development. There have been distance learning initiatives on our campus for a number of years using two way interactive television. (One instructor addresses the 'studio' audience and one to three additional 'satellite' audiences in similar studio environments.) Yet there is a general lack of use of this method and faculty are unenthusiastic about offering such courses. The economics of such distance learning are impractical due to the expense of running multiple television studios where the studio capacities ranged from 20 to 30 students. The university is constantly seeking cost effective avenues for high quality delivery of course materials to students who are either time or distance (i.e. commuting) constrained.

Surveyed student motivations gave ambiguous results. Although the university administration frequently expressed the need to meet student distance constraints, 65% of students in the web-based classes reported that this was not important at all. An additional 13% reported it was not very important. Even student time constraints did not meet our preconceptions; 22% reported time constraints as somewhat important and only 11% reported time constraints as very important.

The shock came from the students' expectations about the ease of web-based versus traditional course material. 25% listed this as somewhat important and 17% listed this as an important consideration for taking a web-based class. A total of 42% of the students chose web-based instruction because, at least to some degree, they thought it would be easier. These students made the following responses to the question "Work I perform for the web-based class will be ..." (a) more than traditional classes [36%], (b) same as traditional [60%], and (c) less than traditional [4%]. I can only be amused at the number of students perceiving the course as easier but asserting they will study harder.

Keys to Success

This issue has been presented by others based upon their experiences at their respective universities. At this university the team approach was essential. A common 'look and feel' for courses is desirable to further the objective of program development, as opposed to a single course, but such standardization is not the issue. When instructors actively communicate on a regular and formal basis there is a synergy of development and implementation ideas. Although the initial courses were developed over the summer and delivered in the Fall semester, the instructors involved in development of those courses continue to meet during the Spring semester to compare experiences and refine tools for delivering web-based courses.

Adequate faculty rewards are essential. Faculty kept informal records of the time involved with web-based course delivery during the semester that the web-based courses were first offered. These time records excluded the initial development and implementation of course materials. The consensus was that web-based course required about three times as many faculty hours per week as traditionally delivered courses. Time requirements for web-based delivery are a disincentive.

During the first four weeks of the web-based course I received and answered approximately 150 e-mail messages that were equivalent to a five to ten minute office visit by a student. These are in addition to the one paragraph chats, sending grades, and other incidental communication. Those 150 e-mails equate to 18 hours and 45 minutes of 'office hours' per week for the web-based class. For the remainder of the semester I averaged 75 messages per week of the five to ten minute office visit variety. Administrators have a different view of compensation. Rewards can be financial, workload reduction, or promotion/tenure related. Faculty developing the web-based courses went through a competition of proposals which led to 15 courses being selected. Faculty summer compensation was equivalent

to the typical compensation for development of a substantially new course, i.e. summer support in an amount equivalent to teaching a course. Other than summer funding, other rewards were not forthcoming and several department chairs and a dean worked to hinder the efforts.

The university chancellor is a strong advocate of web-based instruction and has taken steps to improve its acceptance. The chancellor created a new vice chancellorship for information technology with responsibilities including web-based courses. Deans and department chairs are taking a more friendly stance towards web-based courses since the new vice chancellorship's budget comes in no small part from technology monies that had previously been controlled by the deans.

Support from administrators is crucial to achieve programmatic development.

Why Make Introduction to Management Information Systems Web-based?

The introductory, core curriculum information systems course is the intuitive choice for business schools. The content of the course is not changed by the web-based delivery.

Hardware and software course topics have new importance. Students taking web-based courses must have specific computer hardware. Additional software such as a particular web browser, Adobe's Acrobat Reader, RealPlayer, or others must be loaded onto the student's computer by the student. Students learn about e-mail attachments, "zipped" files, software versions, and file transfer protocols in the normal communication of course materials. The importance of these lessons is sharpened as the student's realize that an assignment not received is an assignment not graded.

Today's business teams are frequently geographically dispersed and requiring class teams to use computer technology for communication and collaboration increases their skill levels. Written communication skills take additional importance for both student and instructor since little, if any, face-to-face communication will occur. While 33% of students expected more faculty to student communication in a web-based course, 46% believed they would communicate more with the instructor. Topics such as the virtual office become theory and practice at the same time.

Conclusion

Development of a web-based course is not to be taken lightly. All of the instructors who developed the 15 courses on our campus quickly realized that preplanning course materials and projects in significant detail is extremely important. Most likened the development of a web-based course to the writing of a complete set of ancillary materials for a textbook.

While the majority of students who choose web-based instruction are not constrained by time or distance, there is a core of students that prefer web-based to face-to-face course work. Student/professor contact increases significantly. I required weekly student feedback on course topics through an electronic forum which was roughly an alternative to class participation. The quality and volume of this "electronic class participation" was much higher than in similar face-to-face courses.

The ultimate question is "would you do it again"? My answer is a qualified "yes". I would insist on a greater infrastructure to help students, such as a training program for lab assistants and the instructor's teaching assistant so that they could handle many of the details of "why won't the computer work?" Second, I would take more time to enjoy the deeper dialogue with students that the web-based course provided. The deeper dialogue with students is why I left industry, earned a Ph.D., and became a college professor.

Resources to Review

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